

EXHIBIT 29

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

TQ DELTA, LLC,

Plaintiff,

v.

2WIRE, INC.

Defendant.

Civil Action No. 1:13-cv-1835-RGA

TQ DELTA, LLC,

Plaintiff,

v.

ZYXEL COMMUNICATIONS, INC
and
ZYXEL COMMUNICATIONS
CORPORATION,

Defendants.

Civil Action No. 1:13-cv-02013-RGA

TQ DELTA, LLC,

Plaintiff,

v.

ADTRAN, INC.,

Defendant.

Civil Action No. 1:14-cv-00954-RGA

ADTRAN, INC.,

Plaintiff,

v.

TQ DELTA, LLC,

Defendant.

Civil Action No. 1:15-cv-00121-RGA

MEMORANDUM OPINION

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Attorneys for Defendants.

July 3, 2018


ANDREWS, U.S. DISTRICT JUDGE:

Presently before the Court is the issue of claim construction of multiple terms in U.S. Patent Nos. 8,462,835 (“the ‘835 patent”) and 8,594,162 (“the ‘162 patent”). The Court has considered the Parties’ Joint Claim Construction Brief (Civ. Act. No. 13-01835-RGA, D.I. 459; Civ. Act. No. 13-02013-RGA, D.I. 443; Civ. Act. No. 14-00954-RGA, D.I. 298; Civ. Act. No. 15-00121-RGA; D.I. 299).¹ The Court heard oral argument on June 21, 2018.²

I. BACKGROUND

The patents-in-suit represent “Family 6” of the patents that Plaintiff has asserted against Defendants. (D.I. 459 at 1). The parties divide the contested patents into ten patent families. (*e.g.* D.I. 269). The Family 6 patents provide a “solution for impulse noise protection adaptation,” namely, “features that improve a communication system’s ability to deliver a sufficiently low error rate in the presence of impulse noise without (a) compromising high data rate and low latency performance more than necessary, or (b) requiring repeated and lengthy re-initialization procedures that interrupt steady-state data transmission.” (D.I. 459 at 17, 20).

II. LEGAL STANDARD

“It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*) (internal quotation marks omitted). “[T]here is no magic formula or catechism for conducting claim construction.’ Instead, the court is free to attach the appropriate weight to appropriate sources ‘in light of the statutes and policies that inform patent law.’” *SoftView LLC v. Apple Inc.*, 2013 WL 4758195, at *1 (D. Del. Sept. 4, 2013) (quoting *Phillips*,

¹ Hereinafter, all citations to the docket refer to Civil Action No. 13-1835-RGA.

² As of July 3, 2018, a transcript has not been completed. Any representations or quotations attributed to the parties are from memory.

Accordingly, I will not read Defendants' proposal into the claims. Instead, I adopt the agreed-upon "numerical value of an interleaver depth parameter" as my construction.

D. "FIP setting" ('835 patent, claims 8 and 10)

1. *Plaintiff's proposed construction*: "set including at least one forward error correction parameter value and at least one interleaver parameter value"
2. *Defendants' proposed construction*: "forward error correction and interleaver parameters characterized by the set of parameters for codeword size in bytes, number of information bytes in a codeword, number of parity or redundancy bytes in a codeword, and interleaver depth in number of codewords"
3. *Court's construction*: "set including at least one forward error correction parameter value and at least one interleaver parameter value"

"FIP" stands for "Forward error correction and Interleaving Parameters." ('835 patent, 1:36, 2:23-24). Therefore, the parties agree that "FIP setting" includes both a "forward error correction parameter" and an "interleaver parameter." (D.I. 459 at 74). The parties further agree that forward error correction and interleaving were well-known concepts at the time of the invention of the Family 6 patents. (D.I. 459 at 12, 79, 83).

However, Defendants argue that "FIP setting" is limited to four specific parameters with specific units: codeword size in bytes, number of parity or redundancy bytes in a codeword, interleaver depth in number of codewords, and number of information bytes in a codeword. (D.I. 459 at 74). Defendants draw their construction from the specification, which provides, "G.992.3 defines the following variables," including INP, where "N is the codeword size in bytes, R is the number of parity (or redundancy) bytes in a codeword, D is the interleaver depth in number of codewords[, L is the number of bits in a DMT symbol[, and] K is the number of information bytes in a codeword." ('835 patent, 2:3-16). The specification then states that "FIP" is "characterized by the set of parameters (N, K, R, D)." ('835 patent, 2:24-25). Because "FIP setting" as an abbreviation is "not a term of art outside the context of the Family 6 patents,"

Defendants argue that looking to the specification to understand the term is proper. (D.I. 459 at 77).

Plaintiff counters, “Defendants’ proposed construction improperly limits the claim term to require all of a set of examples disclosed in the specification.” (D.I. 459 at 74). As evidence, Plaintiff points to the G.993.1 standard, incorporated by reference into the Family 6 patents. *Supra* Section III.C; (D.I. 459 at 75). The G.993.1 standard references other interleaving “parameters,” including block length (I). (D.I. 460-1 at A130).

The Federal Circuit has “expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.” *Phillips*, 415 F.3d at 1323. Rather, “[a]bsent disclaimer or lexicography, the plain meaning of the claim controls.” *See Toshiba Corp.*, 681 F.3d at 1369. Here, Defendants improperly limit “FIP setting” to exactly four parameters, and only those parameters. Although the specification states that “FIP” is “characterized by the set of parameters (N, K, R, D),” the G.993.1 standard, which is part of the intrinsic record, confirms that this statement is a mere embodiment. An “FIP setting” may include other parameters. For that reason, I decline to adopt Defendants’ proposed construction.¹¹

Separately, I will use the word “value” in the construction. By failing to use the word “value” in their construction, Defendants’ construction effectively drops the word “setting” from the term “FIP setting.” (D.I. 459 at 81).

Accordingly, I adopt Plaintiff’s proposed construction.

E. “FIP value” (‘835 patent, claims 8 and 10)

1. *Plaintiff’s proposed construction*: “numerical value of a forward error correction parameter or numerical value of an interleaver parameter”

¹¹ Defendants’ proposed construction also recites units for each parameter. For the reasons provided in Section III.C, those units are embodiments. I decline to read the units into the claims from the specification.